

PATENT SPECIFICATION



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220,848

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PROVISIONAL SPECIFICATION.

Improvements in Binoculars.

I, GEORGE ANDREW HEATH, of Netherhall, The Drive, Sidcup, Kent, a British subject, do hereby declare the nature of this invention to be as follows:—

5 It is well known that with the ordinary binoculars or field glasses when the eye pieces are extended by the central adjusting screw to any material extent the front glasses are inclined to oscillate and so destroy the focussing effect obtained. The object of my present improvements is to provide supplementary means whereby the adjustment of the eye pieces may be made irrespective of operating the 10 central adjusting screw and for this purpose the eye pieces are mounted adjustably within the usual sockets that are operated by the central adjusting screw so that they are independent of the action 15 of the latter.

Each eye piece due to its engagement with a screw or scroll can be independently adjusted to suit the requirements of the user and in order that such adjustments may be accurately obtained by the rotation of the eye pieces, upon the outer surface of each of the cylindrical portions engaging with the aforesaid 20 sockets is provided a graduated scale to

facilitate the even adjustment of the pair 30 of eye glasses. It will be understood that, with the eye pieces so mounted within the sockets that are operated or adjusted by the central adjusting screw, the eye pieces can be adjusted to such 35 a nicety that the sockets containing the same may be brought back so as to bear upon the body of the binoculars thereby increasing the rigidity and avoiding the oscillation of the glasses in their respective 40 sockets.

On the other hand if the eye pieces so adjusted are not quite correct a small adjustment of the ordinary central adjusting screw is all that would be 45 required and consequently there would be less liability to the disadvantage of oscillation aforesaid.

The above described combination of 50 adjusting devices are particularly useful in what are known as the squat type of binocular glasses and a great convenience with night glasses.

Dated this 23rd day of October, 1923.

W. H. BECK & Co.,
Chartered Patent Agents,
115, Cannon Street, London, E.C. 4.

COMPLETE SPECIFICATION.

Improvements in Binoculars.

I, GEORGE ANDREW HEATH, of Netherhall, The Drive, Sidcup, Kent, a British subject, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

65 It is well known that with the ordinary binoculars or field glasses when the eye pieces are extended by the central adjust-

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ing screw to any material extent the front glasses are inclined to oscillate and so destroy the focussing effect obtained. 70 The object of my present improvements is to provide supplementary means whereby the adjustment of the eye pieces may be made irrespective of operating the central adjusting screw and for this purpose the eye pieces are mounted adjustably within the usual sockets that are 75

operated by the central adjusting screw so that they are independent of the action of the latter.

Each eye piece due to its engagement with a screw or scroll can be independently adjusted to suit the requirements of the user and in order that such adjustments may be accurately obtained by the rotation of the eye pieces, upon the outer surface of each of the cylindrical portions engaging with the aforesaid sockets is provided a graduated scale to facilitate the even adjustment of the pair of eye glasses. It will be understood that, with the eye pieces so mounted within the sockets that are operated or adjusted by the central adjusting screw, the eye pieces can be adjusted to such a nicety that the sockets containing the same may be brought back so as to bear upon the body of the binoculars thereby increasing the rigidity and avoiding the oscillation of the glasses in their respective sockets.

In order to further simplify the focussing of the independent or scroll actuated eye pieces, a similar scale to that on the eye pieces is furnished on the centrally adjusted sockets. It will thus be possible to focus a binocular in the ordinary way, read off the number of divisions on one of the aforesaid sockets and this will then be the amount to focus the scroll controlled eye pieces which will then be in the position of focus when the sockets are screwed home to the position of rigidity.

Should the user's eyes be of unequal focus, a further adjustment would have to be made to one of the independent eye pieces.

The above described combination of adjusting devices are particularly useful in what are known as the squat type of binocular glasses and a great convenience with night glasses.

The improvements described above will be more readily understood by reference to the accompanying drawing wherein the eye pieces *a* are shewn adjustably mounted within the sockets *b*, that are

operated by the central adjusting screw *c* in the usual manner, by means of the scrolls *d* provided on the lower parts of the cylindrical portions *e* of the eye pieces *a* and engaging with the scrolls *f* formed on the inner surfaces of the sleeves *g* that are fitted into the sockets *b*. The upper ends of the sleeves *g* are provided with recesses to receive the packing rings *h* that are kept in position by the rings *i* and prevent the access of dust and the like to the interior. *k* represents the graduated scales provided on the outer surfaces of the cylinders *e*, and *l* the similarly divided scale on the sockets *b*.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In binoculars provided with the usual central adjusting screw, adjustably mounting the eye pieces within the sockets controlled by the said screw in such a manner that they are independent of its action, substantially as described.

2. In binoculars as claimed in the first claim, providing a graduated scale on each of the independently actuated eye pieces substantially as and for the purpose described.

3. A binocular as claimed in the first claim in which each eye piece is provided with a scroll on the lower part of its cylindrical portion that engages with a scroll formed on the inner surface of a sleeve fitted into each of the sockets that are operated by the central adjusting screw substantially as described.

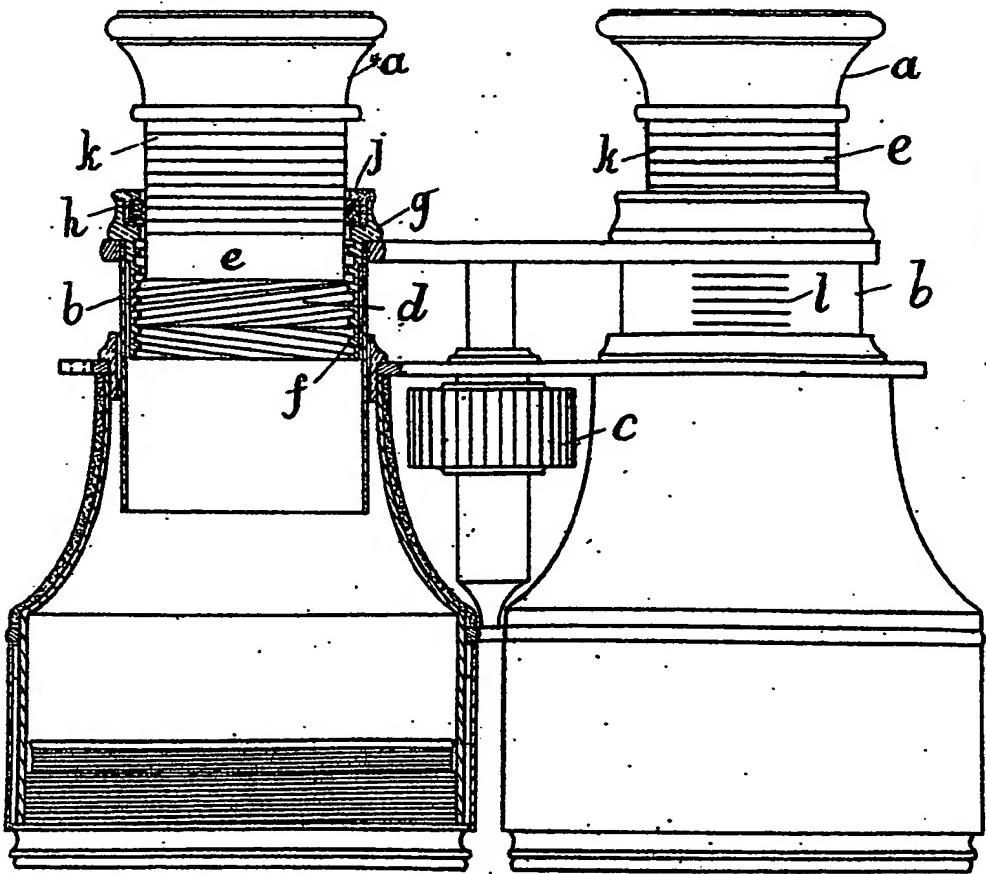
4. A binocular provided with independently adjustable eye pieces *a*, graduated scales *k* on said eye pieces and similarly graduated scales *l* on the centrally adjusted screw controlled sockets *b*, substantially as described and illustrated in the drawing hereto annexed.

Dated this 18th day of July, 1924.
W. H. BECK & Co.,
Chartered Patent Agents,
115, Cannon Street, London, E.C. 4.

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[This Drawing is a full-size reproduction of the Original.]



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